A THIRD OF A CENTURY OF LP-GAS SALES, 1922-52

BY A. T. COUMBE AND I. F. AVERY

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INTRODUCTION

The first survey [3] covering sales of liquefied petroleum gases was made in 1930 by the Bureau of Mines, which at the time was under the United States Department of Commerce. This original canvass covered national totals for 1922 through 1929, and most of the supply came from natural gasoline plants. The 1930 report showed approximate totals for butane and propane and for butane-propane mixtures and pentane grouped together. No attempt was made to breakdown the national sales by various uses until 1931, when the quantities for domestic or household consumption, gas manufacturing, and industrial requirements, including miscellaneous uses were indicated. As the market for these liquid petroleum gases expanded and as new uses came into importance, their respective quantities were shown separately in the annual survey. Sales for internal-combustion engine fuel and for raw material for chemical plants were first taken out of the industrial total in 1936. During World War II liquefied petroleum gases became important as feed stock diverted to synthetic rubber plants, and consequently the survey was broadened to cover this particular demand, beginning in 1944. Pentane was dropped from the survey after 1943, as, being liquid at atmospheric pressure, it is not considered as one of the liquefied petroleum gases and furthermore, the quantity reported made up less than 1 percent of the total sales.

Thirteen producing companies reported to the Bureau in the first survey made in 1930, and in the 1952 canvass about 130 producers--petroleum refiners and natural gasoline companies--and about 1,300 dealers cooperated by filing schedules showing a breakdown of their sales. Their 1952 deliveries of approximately 4.5 billion gallons of liquefied petroleum gases were equivalent to about 3.4 billion gallons of gasoline or 3.1 billion gallons of distillate fuel oil.

During the third of a century under review the demand for liquefied petroleum gases for domestic or household uses has sky-rocketed from trivial amounts in the early years to well over 2 billion gallons in 1952, a quantity well above the total for all uses for these gases 5 years previously or for 1947. There were an estimated total of 5,000 users of "bottled gas" in 1926, and this market expanded to about 8,500,000 by the end of 1952.

The first gas utility to distribute butane air gas through its mains began operations at Linton, Ind. in June 1920. By May 1930 14 similar plants were in existance and 13 more were under construction. The American Gas Association reports that in July 1952 liquefied petroleum gas was being delivered through mains in 384 communities in 36 States by 185 utilities. An average of 305,000 customers were served by these gas utilities in 1952.

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[3] Under direction of E. B. Swanson, retired.

Original from THE OHIO STATE UNIVERSITY

The industrial demand for liquefied petroleum gases has represented 6 to 8 percent of the market in recent years. Because its use facilitates temperature control, it is particularly adopted to such manufacturing operations as annealing, metal cutting, brazing, carbonizing, etc. It is also an excellent stand-by fuel. Although the quantity of liquefied petroleum gases used as components for the manufacture of synthetic rubber declined after World War II, there was an increase to record volumes in 1951 and 1952. About 100 chemical plants making alcohol, detergents, acetates, plastics, resins, and other numerous products use liquefied petroleum gases as raw material, and their requirements for this feed stock coming from petroleum refineries and natural gasoline plants now accounts for about a fifth of the total marketed production.

Sales of liquefied petroleum gases as fuel for internal-combustion engines have shown a rapid growth in recent years largely because of their lower cost and superiority as a motor fuel compared with gasoline. Furthermore lower maintenance costs for engines using this fuel are an added advantage. The use of liquefied petroleum gases as motor fuel is confined largely to heavy equipment, such as farm tractors and other off-road machinery, buses, trucks, drilling rigs, and irrigation pumps.

DEFINITIONS

Liquefied petroleum gases 4/and pentane

Commercial Butane - A hydrocarbon product composed predominately of butane and/or butylenes. The vapor pressure at 100° F. as determined by NGAA Vapor Pressure Test shall not be more than 70 pounds per square inch gage pressure.

Commercial Propane - A hydrocarbon product composed predominately of propane and/or propylene. The vapor pressure at 100° F. as determined by NGAA Vapor Pressure Test shall not be more than 215 pounds per square inch gage pressure.

Butane-Propane Mixtures - Hydrocarbon products composed predominately of mixtures of butane and/or butylenes with propane and/or propylene. The vapor pressure at 100° F. as determined by NGAA Vapor Pressure Test shall not be more than 215 pounds per square inch gage pressure.

4/Natural Gasoline Association of America.

Note: Liquefied petroleum gases sold for chemical raw material for the manufacture of synthetic rubber or other products include all material, either in a liquid or gaseous state, which are predominately of the C_3 or C_4 group of hydrocarbons, even though mixed with other petroleum gases of the paraffin or olefin series.

Commercial Pentane - A hydrocarbon product composed predominately of pentane and/or pentene. It is a liquid at 60° F. and at atmospheric pressure.

TABLE 1.- Sales of LP-gases in the United States, 1930-52, by principal uses
(Thousands of gallons)

Butane

Year	Domestic and commercial	Gas manufacturing	Industrial	Synthetic rubber	Chemical plants	Internal combustion	All other uses	Total
1930	--	--	--	--	--	--	--	1/6,517
1931	--	--	--	--	--	--	--	1/13,770
1932	82	7,226	7,354	--	--	--	--	14,662
1933	706	6,170	12,180	--	--	--	--	19,056
1934	1,046	5,064	19,443	--	--	--	--	25,553
1935	1,353	5,042	27,689	--	--	--	--	34,084
1936	2,956	6,227	28,553	--	--	2/2,367	2/97	40,200
1937	6,047	7,325	28,071	--	2/207	1,715	2,034	45,399
1938	13,194	8,270	23,405	--	43	5,025	2,831	52,768
1939	17,881	9,796	36,388	--	42	5,850	1,394	71,351
1940	21,302	10,847	33,166	--	10	11,242	489	77,056
1941	34,073	12,152	46,677	--	289	18,799	254	112,244
1942	45,028	12,419	50,495	--	5,256	14,870	492	128,560
1943	44,255	21,829	56,143	--	7,972	9,895	28	140,122
1944	27,565	14,900	52,890	3/150,246	23,475	4,030	10	273,116
1945	52,866	15,637	42,043	181,857	26,227	6,469	41	325,140
1946	45,285	25,682	48,100	271,925	45,959	4,467	--	441,418
1947	62,092	58,424	61,901	187,733	18,796	9,662	27	398,635
1948	113,001	63,572	54,420	194,777	66,452	20,019	374	512,615
1949	154,599	61,501	43,343	156,607	56,476	14,993	1,282	488,801
1950	178,643	40,924	40,998	216,299	70,495	14,894	5,785	568,038
1951	126,042	26,699	44,565	357,484	118,913	34,291	995	708,989
1952	107,858	26,400	53,333	343,691	81,367	25,965	668	639,282

1/ Includes some pentane and "Mixtures."

2/ Included with "Industrial" in previous years.

3/ Reported for the first time.

TABLE 2. - Sales of LP-gases in the United States, 1930-52, by principal uses
(Thousands of gallons)

Propane

Year	Domestic and commercial	Gas manufacturing	Industrial	Synthetic rubber	Chemical plants	Internal combustion	All other uses	Total
1930	--	--	--	--	--	--	--	11,500
1931	--	--	--	--	--	--	--	15,000
1932	14,570	258	354	--	--	--	--	15,182
1933	14,334	200	1,301	--	--	--	--	15,835
1934	15,236	326	3,119	--	--	--	--	18,681
1935	18,325	702	7,787	--	--	--	--	26,814
1936	24,423	944	11,030	--	--	1/105	--	36,502
1937	30,436	1,077	14,490	--	1/77	278	116	46,474
1938	37,556	1,491	14,316	--	347	380	40	54,130
1939	52,533	2,083	23,685	--	249	663	110	79,323
1940	68,927	5,201	33,122	--	987	915	64	109,216
1941	100,348	6,678	16,730	--	1,528	1,631	54	126,969
1942	115,913	4,957	20,601	--	5,850	3,112	78	150,511
1943	127,391	8,117	73,698	--	4,455	4,592	20	218,273
1944	167,450	17,103	93,040	2/11,529	40,666	6,085	11	335,884
1945	216,415	22,323	105,040	26,526	66,776	7,453	48	444,581
1946	310,040	41,199	91,033	19,631	81,727	7,605	15	551,250
1947	503,448	77,110	83,108	4,558	182,388	12,595	479	863,686
1948	765,953	133,075	100,616	4,125	261,327	14,132	516	1,279,744
1949	854,456	144,883	99,736	1,380	277,045	20,264	5,595	1,403,359
1950	1,205,760	192,347	161,057	12,186	302,459	63,825	667	1,938,301
1951	1,369,019	231,226	184,457	5,281	508,422	114,944	5,441	2,418,790
1952	1,509,534	206,573	215,471	246	422,130	149,845	9,796	2,513,595

1/ Included with "Industrial" in previous years.

2/ Reported for the first time.

TABLE 3. - Sales of LP-gases in the United States, 1930-52, by principal uses
(Thousands of gallons)

Butane-Propane Mixtures

Year	Domestic and commercial	Gas manufacturing	Industrial	Synthetic rubber	Chemical plants	Internal combustion	All other uses	Total
1930	--	--	--	--	--	--	--	1/
1931	--	--	--	--	--	--	--	1/
1932	--	--	--	--	--	--	--	3,417
1933	--	--	--	--	--	--	--	3,226
1934	--	--	--	--	--	--	--	10,271
1935	1,702	1,837	9,953	--	--	--	--	13,492
1936	2,048	2,200	899	--	2/12,223	2/10,004	2/1	27,375
1937	3,504	2,765	699	--	24,601	14,994	131	46,694
1938	6,316	2,617	1,112	--	30,496	15,509	--	56,050
1939	16,093	3,483	2,155	--	23,957	23,279	53	69,020
1940	43,133	4,191	3,508	--	30,636	41,761	119	123,348
1941	91,673	6,368	35,287	--	39,243	46,441	240	219,252
1942	142,150	13,961	43,011	--	38,325	64,470	--	301,917
1943	172,679	7,532	19,474	--	39,584	73,344	70	312,683
1944	250,602	13,876	16,088	3/310	87,844	82,380	56	451,156
1945	263,981	15,889	16,038	404	131,288	79,418	27	507,045
1946	403,141	19,779	19,982	2,336	183,813	82,520	23	711,594
1947	584,998	33,798	28,592	9,244	213,083	77,529	232	947,476
1948	594,335	40,991	25,482	26,739	196,571	58,790	1,534	944,442
1949	618,495	32,826	19,118	19,863	211,365	42,724	48	944,439
1950	638,061	18,423	15,023	--	251,514	51,099	2,108	976,228
1951	671,752	23,767	33,080	12,099	217,172	140,756	870	1,099,496
1952	648,786	26,724	56,163	27,060	367,493	194,748	3,528	1,324,502

1/ Included with "butane" in previous years.

2/ Included with "Industrial" in previous years.

3/ Reported for the first time.

TABLE 4. - Sales of LP-gases in the United States, 1930-43, by principal uses
(Thousands of gallons)

Pentane

Year	Domestic and commercial	Gas manufacturing	Industrial	Chemical plants	Internal combustion	All other uses	Total
1930	--	--	--	--	--	--	1/
1931	--	--	--	--	--	--	1/
1932	--	--	--	--	--	--	854
1933	--	--	--	--	--	--	814
1934	--	--	--	--	--	--	1,922
1935	--	--	--	--	--	--	2,465
1936	587	--	--	2/1,880	--	108	2,575
1937	836	8	--	2/1,957	--	32	2,833
1938	766	8	16	1,413	--	50	2,253
1939	1,023	73	112	2,644	--	34	3,886
1940	656	46	96	3,038	--	--	3,836
1941	1,128	57	34	3,146	--	22	4,387
1942	766	29	25	3,607	4	21	4,452
1943	637	41	114	3,345	3	15	4,155

1/ Included with "Butane".

2/ Includes some "Industrial" fuel.

TABLE 5. - Sales of LP-gases in the United States, 1922-52, by principal uses
(Thousands of gallons)

Total - all LP-gases

Year	Domestic and commercial	Gas manufacturing	Industrial	Synthetic rubber	Chemical plants	Internal combustion	All other uses	Total
1922	--	--	--	--	--	--	--	223
1923	--	--	--	--	--	--	--	277
1924	--	--	--	--	--	--	--	376
1925	--	--	--	--	--	--	--	404
1926	--	--	--	--	--	--	--	465
1927	--	--	--	--	--	--	--	1,091
1928	--	--	--	--	--	--	--	4,523
1929	--	--	--	--	--	--	--	9,931
1930	--	--	--	--	--	--	--	18,017
1931	15,295	6,303	7,172	--	--	--	--	28,770
1932	16,244	9,704	8,167	--	--	--	--	34,115
1933	16,626	8,318	13,987	--	--	--	--	38,931
1934	17,681	6,298	32,448	--	--	--	--	56,427
1935	21,380	7,581	47,894	--	--	--	--	76,855
1936	30,014	9,371	40,482	--	1/14,103	1/12,476	1/206	106,652
1937	40,823	11,175	43,260	--	26,842	16,987	2,313	141,400
1938	57,832	11,307	39,141	--	32,299	21,701	2,921	165,201
1939	87,530	15,435	62,340	--	26,892	29,792	1,591	223,580
1940	134,018	20,285	69,892	--	34,671	53,918	672	313,456
1941	227,222	25,255	98,728	--	44,206	66,871	570	462,852
1942	303,857	31,366	114,132	--	53,038	82,456	591	585,440
1943	344,962	37,519	149,429	--	55,356	87,834	133	675,233
1944	445,617	45,879	162,018	2/162,085	151,985	92,495	77	1,060,156
1945	533,262	53,849	163,121	208,787	224,291	93,340	116	1,276,766
1946	758,466	86,660	159,115	293,892	311,499	94,592	38	1,704,262
1947	1,150,538	169,332	173,601	201,535	414,267	99,786	738	2,209,797
1948	1,473,289	237,638	180,518	225,641	524,350	92,941	2,424	2,736,801
1949	1,627,550	239,210	162,197	177,850	544,886	77,981	6,925	2,836,599
1950	2,022,464	251,694	217,078	228,485	624,468	129,818	8,560	3,482,567
1951	2,166,813	281,692	262,102	374,864	844,507	289,991	7,306	4,227,275
1952	2,266,178	259,697	324,967	370,997	870,990	370,558	13,992	4,477,379

1/ Included with "Industrial" in previous years.
2/ Reported for the first time.

TABLE 6. - Sales of LP-gases by marketing districts, 1948-52
(Thousands of gallons)

Principal uses and districts:	Butane					Propane				
	1948	1949	1950	1951	1952	1948	1949	1950	1951	1952
Domestic and commercial:										
District 1	17,159	19,927	11,430	16,805	16,367	193,515	223,146	344,142	359,765	369,956
District 2	22,419	44,149	46,092	40,008	33,366	317,068	359,194	566,701	622,945	707,991
District 3	58,986	73,823	111,479	62,045	54,004	138,260	142,168	136,769	194,528	199,280
District 4	7,595	13,895	7,044	7,184	4,024	28,643	29,463	56,214	65,180	79,223
District 5	6,842	2,805	2,598	—	97	88,467	100,485	101,934	126,601	153,084
Total	113,001	154,599	178,643	126,042	107,858	765,953	854,456	1,205,760	1,369,019	1,509,534
Gas manufacturing:										
District 1	20,521	18,656	17,442	11,067	14,396	45,156	47,681	72,304	83,881	90,226
District 2	36,445	37,421	20,207	11,341	9,217	69,890	74,265	87,493	103,267	76,635
District 3	2,206	1,730	978	467	105	1,802	3,099	6,337	10,025	9,560
District 4	2,588	1,353	284	838	520	—	310	5,479	6,338	3,447
District 5	1,812	2,341	2,013	2,986	2,162	16,227	19,528	20,734	27,715	26,705
Total	63,572	61,501	40,924	26,699	26,400	133,075	144,883	192,347	231,226	206,573
Industrial plants:										
District 1	7,042	4,495	4,502	5,600	6,676	48,135	43,855	75,683	76,166	87,080
District 2	43,414	35,404	34,263	29,636	38,016	40,095	45,120	61,645	82,346	82,542
District 3	1,286	1,050	1,511	4,794	7,020	596	1,524	16,307	17,268	29,095
District 4	—	1,147	—	1,609	276	1,033	174	1,133	1,904	2,294
District 5	2,678	1,247	722	2,926	1,345	10,757	9,063	6,289	6,773	14,460
Total	54,420	43,343	40,998	44,565	53,333	100,616	99,736	161,057	184,457	215,471
Synthetic rubber:										
District 1	563	121	—	135	461	870	—	353	41	32
District 2	19,311	21,816	—	2,875	2,227	1,267	—	410	—	72
District 3	159,197	124,496	215,219	325,370	309,194	785	—	—	4,872	—
District 4	—	—	—	—	—	—	—	—	2	—
District 5	15,706	10,174	1,080	29,104	31,809	1,203	1,380	11,423	366	142
Total	194,777	156,607	216,299	357,484	343,691	4,125	1,380	12,186	5,281	246
Chemical plants:										
District 1	178	1,780	6,067	4,644	6,610	4,915	388	39,607	19,134	19,430
District 2	—	—	993	2,159	2,246	785	5,109	7,516	5,012	8,171
District 3	56,071	46,983	63,277	98,055	62,862	220,930	243,571	251,249	444,839	353,287
District 4	—	—	—	—	—	—	—	—	—	27
District 5	10,203	7,713	158	14,055	9,649	34,697	27,977	4,087	39,437	41,215
Total	66,452	56,476	70,495	118,913	81,367	261,327	277,045	302,459	508,422	422,130
Internal-combustion:										
District 1	380	—	90	—	33	52	24	1,454	3,215	3,870
District 2	16,491	10,958	4,985	6,559	9,119	7,514	9,999	19,005	36,545	50,886
District 3	49	1,878	9,389	24,876	15,419	1,004	2,443	7,687	34,556	52,128
District 4	6	5	356	2,840	1,394	41	115	2,110	2,095	5,919
District 5	3,093	2,152	74	16	—	5,521	7,683	33,569	38,533	37,042
Total	20,019	14,993	14,894	34,291	25,965	14,132	20,264	63,825	114,944	149,845
All other:										
District 1	1	1	—	101	—	283	123	53	1,112	2,968
District 2	54	1,252	5,503	79	15	232	1,326	299	1,926	2,571
District 3	319	29	107	432	346	1	4,146	97	1,477	1,995
District 4	—	—	—	—	—	—	—	200	191	306
District 5	—	—	175	383	307	—	—	18	735	1,956
Total	374	1,282	5,785	995	668	516	5,595	667	5,441	9,796
Total all uses:										
District 1	45,844	44,980	39,531	38,352	44,543	292,926	315,217	533,596	543,314	573,562
District 2	138,134	151,000	112,043	92,657	94,206	436,851	495,013	743,069	852,041	928,868
District 3	278,114	249,989	401,960	516,039	448,950	363,378	396,951	418,446	707,565	645,345
District 4	10,189	16,400	7,684	12,471	6,214	29,717	30,062	65,136	75,710	91,216
District 5	40,334	26,432	6,820	49,470	45,369	156,872	166,116	178,054	240,160	274,604
Total	512,615	488,801	568,038	708,989	639,282	1,279,744	1,403,359	1,938,301	2,418,790	2,513,595

TABLE 6. - Sales of LP-gases by marketing districts, 1948-52—Continued

(Thousands of gallons)

Principal uses and districts:	Butane-propane mixtures					Total LP-gases				
	1948	1949	1950	1951	1952	1948	1949	1950	1951	1952
Domestic and commercial:										
District 1	35,670	39,173	66,831	59,159	68,565	246,344	282,246	422,403	435,729	454,888
District 2	119,667	124,129	100,825	97,673	78,453	459,154	527,472	713,618	760,626	819,810
District 3	351,852	354,730	387,916	434,048	412,545	549,098	570,721	636,164	690,621	665,829
District 4	4,325	6,244	1,237	2,745	3,814	40,563	49,602	64,495	75,109	87,061
District 5	82,821	94,219	81,252	78,127	85,409	178,130	197,509	185,784	204,728	238,590
Total	594,335	618,495	638,061	671,752	648,786	1,473,289	1,627,550	2,022,464	2,166,813	2,266,178
Gas manufacturing:										
District 1	3,906	4,790	3,694	8,618	12,509	69,583	71,127	93,440	103,566	117,131
District 2	20,990	16,278	5,381	4,712	3,496	127,325	127,964	113,081	119,320	89,348
District 3	3,775	3,456	4,594	2,801	4,347	7,783	8,285	11,909	13,293	14,012
District 4	1,243	955	153	—	201	3,831	2,618	5,916	7,176	4,168
District 5	11,077	7,347	4,601	7,636	6,171	29,116	29,216	27,348	38,337	35,038
Total	40,991	32,826	18,423	23,767	26,724	237,638	239,210	251,694	281,692	259,697
Industrial plants:										
District 1	1,336	1,352	2,081	2,385	1,721	56,513	49,702	82,266	84,151	95,477
District 2	8,785	5,300	3,743	7,500	11,061	92,294	85,824	99,651	119,482	131,619
District 3	1,510	7,262	7,212	19,818	37,285	3,392	9,836	25,030	41,880	73,400
District 4	—	—	143	5	986	1,033	1,321	1,276	3,518	3,556
District 5	13,851	5,204	1,844	3,372	5,110	27,286	15,514	8,855	13,071	20,915
Total	25,482	19,118	15,023	33,080	56,163	180,518	162,197	217,078	262,102	324,967
Synthetic rubber										
District 1	—	7	—	—	20	1,433	128	353	176	513
District 2	2	1	—	76	3,059	20,580	21,817	410	2,951	5,358
District 3	26,737	19,855	—	10,009	23,981	186,719	144,351	215,219	340,251	333,175
District 4	—	—	—	—	—	—	—	—	2	—
District 5	—	—	—	2,014	—	16,909	11,554	12,503	31,484	31,951
Total	26,739	19,863	—	12,099	27,060	225,641	177,850	228,485	374,864	370,997
Chemical plants:										
District 1	74,873	84,599	108,109	132,927	172,998	79,966	86,767	153,783	156,705	199,038
District 2	44,706	46,745	52,141	84,219	76,733	45,491	51,854	60,650	91,390	87,150
District 3	76,992	80,021	73,135	26	117,762	353,993	370,575	387,661	542,920	533,911
District 4	—	—	—	—	—	—	—	—	—	27
District 5	—	—	18,129	—	—	44,900	35,690	22,374	53,492	50,864
Total	196,571	211,365	251,514	217,172	367,493	524,350	544,886	624,468	844,507	870,990
Internal-combustion:										
District 1	—	1,633	794	1,131	1,285	432	1,657	2,338	4,346	5,188
District 2	18,754	17,338	13,587	26,003	31,094	42,759	38,295	37,577	69,107	91,099
District 3	19,231	11,051	26,666	97,302	129,365	20,284	15,372	43,742	156,734	196,912
District 4	453	6	307	1,437	3,921	500	126	2,773	6,372	11,234
District 5	20,352	12,696	9,745	14,883	29,083	28,966	22,531	43,388	53,432	66,125
Total	58,790	42,724	51,099	140,756	194,748	92,941	77,981	129,818	289,991	370,558
All other:										
District 1	—	2	22	35	84	284	126	75	1,248	3,052
District 2	253	12	—	305	59	539	2,590	5,802	2,310	2,645
District 3	1,281	34	2,068	455	2,884	1,601	4,209	2,272	2,364	5,225
District 4	—	—	—	—	—	—	—	200	191	306
District 5	—	—	18	75	501	—	—	211	1,193	2,764
Total	1,534	48	2,108	870	3,528	2,424	6,925	8,560	7,306	13,992
Total all uses:										
District 1	115,785	131,556	181,531	204,255	257,182	454,555	491,753	754,658	785,921	875,287
District 2	213,157	209,803	175,677	220,488	203,955	788,142	855,816	1,030,789	1,165,186	1,227,029
District 3	481,378	476,409	501,591	564,459	728,169	1,122,870	1,123,349	1,321,997	1,788,063	1,822,464
District 4	6,021	7,205	1,840	4,187	8,922	45,927	53,667	74,660	92,368	106,352
District 5	128,101	119,466	115,589	106,107	126,274	325,307	312,014	300,463	395,737	446,247
Total	944,442	944,439	976,228	1,099,496	1,324,502	2,736,801	2,836,599	3,482,567	4,227,275	4,477,379

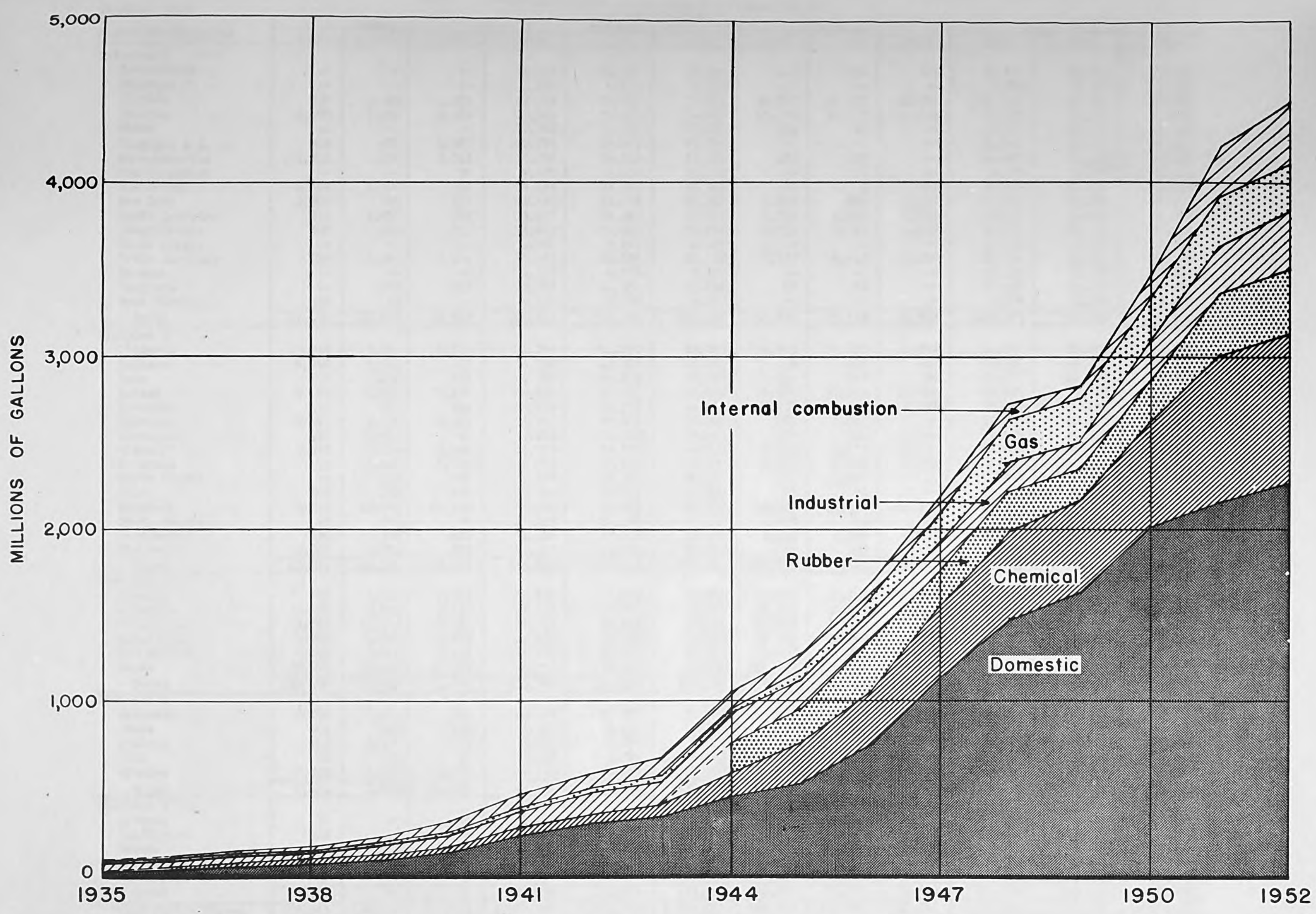

Figure I. — SALES OF LP-GAS. BY PRINCIPAL USES.

TABLE 7. - Sales of LP-gases in the United States, 1950-52
(Thousands of gallons)

Domestic uses

States by districts	Butane 1950	Butane 1951	Butane 1952	Propane 1950	Propane 1951	Propane 1952	Mixture 1950	Mixture 1951	Mixture 1952	Total LP-gases 1950	Total LP-gases 1951	Total LP-gases 1952
District 1												
Connecticut	—	—	—	16,021	16,350	17,164	510	262	121	16,531	16,612	17,285
Delaware	—	—	—	6,770	5,031	6,372	—	—	—	6,770	5,031	6,372
Florida	838	5,282	4,035	27,315	28,048	35,154	26,088	26,003	26,704	54,241	59,333	65,893
Georgia	2,170	3,556	6,229	27,386	33,102	34,819	19,279	15,117	21,046	48,835	51,775	62,094
Maine	—	—	—	12,392	11,339	11,655	124	10	—	12,516	11,349	11,655
Maryland & D. C.	848	570	1,323	20,792	19,669	19,715	—	—	—	21,640	20,239	21,038
Massachusetts	1,245	1,578	1,343	20,239	20,649	22,479	483	627	—	21,967	22,854	23,822
New Hampshire	—	—	90	9,177	9,458	10,011	—	71	—	9,177	9,529	10,101
New Jersey	1,522	1,305	580	29,453	29,382	23,347	42	4	275	31,017	30,691	24,202
New York	2,800	392	117	48,981	51,618	50,147	1,025	856	2,430	52,806	52,866	52,694
North Carolina	355	1,807	391	33,431	38,242	43,394	8,745	4,565	4,082	42,531	44,614	47,867
Pennsylvania	308	310	312	35,632	35,920	32,859	2,531	2,173	4,649	38,471	38,403	37,820
Rhode Island	—	—	—	4,918	5,150	4,227	—	—	—	4,918	5,150	4,227
South Carolina	712	1,283	1,804	18,063	19,124	20,138	7,937	9,410	9,258	26,712	29,817	31,200
Vermont	—	—	—	5,115	6,098	7,122	—	—	—	5,115	6,098	7,122
Virginia	—	657	143	22,383	24,351	25,146	67	61	—	22,450	25,069	25,289
West Virginia	632	65	—	6,074	6,234	6,207	—	—	—	6,706	6,299	6,207
Total	11,430	16,805	16,367	344,142	359,765	369,956	66,831	59,159	68,565	422,403	435,729	454,888
District 2												
Illinois	13,758	7,694	2,553	74,292	82,030	89,283	6,765	7,076	1,532	94,815	96,800	93,368
Indiana	6,949	2,551	423	36,730	42,265	49,977	48	467	417	43,727	45,283	50,817
Iowa	138	410	511	44,728	49,109	57,698	1,811	262	84	46,677	49,781	58,293
Kansas	1,244	3,726	7,196	46,936	52,931	66,327	21,006	22,910	19,814	69,186	79,567	93,337
Kentucky	438	717	249	23,167	23,733	26,587	2,423	2,039	2,433	26,028	26,489	29,269
Michigan	8,207	3,750	3,342	33,700	38,101	38,280	874	1,041	—	42,781	42,892	41,622
Minnesota	480	1,015	796	52,843	54,023	63,616	110	241	1,004	53,433	55,279	65,416
Missouri	1,388	2,154	3,056	51,779	56,472	69,776	9,301	9,875	8,631	62,468	68,501	81,463
Nebraska	414	1,054	1,714	36,012	37,821	43,439	2,569	3,500	3,655	38,995	42,375	48,808
North Dakota	—	533	228	17,357	18,726	20,216	451	1,257	14	17,808	20,516	20,458
Ohio	503	438	456	27,933	30,937	32,966	21	72	—	28,457	31,447	33,422
Oklahoma	9,855	12,054	11,524	42,389	49,047	60,003	46,069	44,030	36,700	98,313	105,131	108,227
South Dakota	43	709	—	28,633	31,439	33,262	1,900	10	310	30,576	32,158	33,572
Tennessee	530	388	427	14,270	17,603	17,479	7,429	4,563	3,832	22,229	22,554	21,738
Wisconsin	2,145	2,815	891	35,932	38,708	39,082	48	330	27	38,125	41,853	40,000
Total	46,092	40,008	33,366	566,701	622,945	707,991	100,825	97,673	78,453	713,618	760,626	819,810
District 3												
Alabama	769	3,542	1,973	16,828	16,993	19,956	15,659	21,357	21,842	33,256	41,892	43,771
Arkansas	2,873	2,821	7,512	19,438	20,674	29,967	49,273	50,451	48,970	71,584	73,946	86,449
Louisiana	53,317	23,546	8,436	12,519	20,516	17,994	62,945	84,851	59,066	128,781	128,913	85,496
Mississippi	5,868	4,867	3,779	14,658	13,296	18,643	30,751	35,740	52,508	51,277	53,903	74,930
New Mexico	9,178	3,844	4,117	16,825	26,072	22,062	16,037	14,782	10,562	42,040	44,698	36,741
Texas	39,474	23,425	28,187	56,501	96,977	90,658	213,251	226,867	219,597	309,226	347,269	338,442
Total	111,479	62,045	54,004	136,769	194,528	199,280	387,916	434,048	412,545	636,164	690,621	665,829
District 4												
Colorado	2,893	2,075	600	28,168	32,995	39,582	826	2,252	2,846	31,887	37,322	43,028
Idaho	164	245	185	3,362	5,153	6,506	—	142	200	3,526	5,540	6,891
Montana	148	2,106	329	8,031	7,575	9,686	—	—	—	8,179	9,681	10,015
Utah	14	46	37	2,123	2,972	6,061	25	12	31	2,162	3,030	6,129
Wyoming	3,825	2,712	2,873	14,530	16,485	17,388	386	339	737	18,741	19,536	20,998
Total	7,044	7,184	4,024	56,214	65,180	79,223	1,237	2,745	3,814	64,495	75,109	87,061
District 5												
Arizona	38	—	44	9,581	10,263	7,721	9,447	8,874	15,177	19,066	19,137	22,942
California	552	—	—	70,826	76,975	98,525	67,927	66,023	66,049	139,305	142,998	164,574
Nevada	—	—	—	2,137	4,475	5,040	7	—	1,284	2,144	4,475	6,324
Oregon	1,888	—	—	12,070	24,052	28,594	2,479	2,200	—	16,437	26,252	28,594
Washington	120	—	53	7,320	10,836	13,204	1,392	1,030	2,899	8,832	11,866	16,156
Total	2,598	—	97	101,934	126,601	153,084	81,252	78,127	85,409	185,784	204,728	238,590
Total United States	178,643	126,042	107,858	1,205,760	1,369,019	1,509,534	638,061	671,752	648,786	2,022,464	2,166,813	2,266,178

TABLE 8. - Sales of LP-gases in the United States, 1950-52

(Thousands of gallons)

Gas manufacturing

States by districts	Butane			Propane			Mixture			Total LP-gases		
	1950	1951	1952	1950	1951	1952	1950	1951	1952	1950	1951	1952
District 1												
Connecticut	63	72	2,725	7,123	5,984	11,403	—	—	—	7,186	6,056	14,128
Delaware	—	7	11	783	2,169	1,245	—	—	—	783	2,176	1,256
Florida	240	490	312	4,019	4,697	9,025	256	1,471	1,274	4,515	6,658	10,611
Georgia	112	684	881	6,363	7,639	5,757	94	1,577	4,646	6,569	9,900	11,284
Maine	—	—	—	734	461	1,011	—	—	—	734	461	1,011
Maryland & D. C.	—	11	74	3,684	3,048	3,468	—	—	—	3,684	3,059	3,542
Massachusetts	6,494	3,667	6,475	5,102	5,268	7,733	3,020	2,012	—	14,616	10,947	14,208
New Hampshire	—	—	—	382	1,165	1,472	—	—	—	382	1,165	1,472
New Jersey	3,847	1,570	857	9,033	6,356	4,014	—	—	—	12,880	7,926	4,871
New York	3,415	1,529	461	4,479	4,649	4,412	20	—	387	7,914	6,178	5,260
North Carolina	—	841	229	12,455	15,861	15,231	—	—	243	12,455	16,702	15,703
Pennsylvania	2,374	1,084	1,961	8,029	13,708	13,819	—	2,841	5,959	10,403	17,633	21,739
Rhode Island	—	—	—	—	4	158	—	—	—	—	4	158
South Carolina	61	218	31	2,768	5,715	4,622	304	717	—	3,133	6,650	4,653
Vermont	—	—	27	1,156	2,009	2,772	—	—	—	1,156	2,009	2,799
Virginia	836	455	352	5,612	4,027	3,430	—	—	—	6,448	4,482	3,782
West Virginia	—	439	—	582	1,121	654	—	—	—	582	1,560	654
Total	17,442	11,067	14,396	72,304	83,881	90,226	3,694	8,618	12,509	93,440	103,566	117,131
District 2												
Illinois	3,384	2,406	550	11,853	13,591	8,788	2,131	1,391	566	17,368	17,388	9,904
Indiana	3,258	1,227	74	14,115	19,114	12,638	328	104	—	17,701	20,445	12,712
Iowa	3,201	2,212	3,805	6,481	6,794	9,183	410	735	539	10,092	9,741	13,527
Kansas	10	10	—	75	82	10	369	—	99	454	92	109
Kentucky	—	182	—	—	316	1,365	1,633	1,010	10	1,633	1,508	1,375
Michigan	8,054	2,950	1,929	19,240	24,864	12,129	—	—	—	27,294	27,814	14,058
Minnesota	1,380	655	1,463	5,650	7,066	7,289	30	91	421	7,060	7,812	9,173
Missouri	102	11	51	2,638	4,455	3,167	—	—	—	2,740	4,466	3,218
Nebraska	—	—	—	1,844	2,216	2,305	—	9	23	1,844	2,225	2,328
North Dakota	80	72	80	1,405	2,084	1,663	—	—	10	1,485	2,156	1,753
Ohio	—	—	42	5,478	6,012	2,992	—	—	—	5,478	6,012	3,034
Oklahoma	—	—	—	1,913	1,859	1,552	—	380	—	1,913	2,239	1,552
South Dakota	170	83	103	1,771	3,196	2,516	480	560	520	2,421	3,839	3,139
Tennessee	400	666	—	4,282	3,024	2,765	—	412	547	4,682	4,102	3,312
Wisconsin	168	867	1,120	10,748	8,594	8,273	—	20	761	10,916	9,481	10,154
Total	20,207	11,341	9,217	87,493	103,267	76,635	5,381	4,712	3,496	113,081	119,320	89,348
District 3												
Alabama	770	423	105	1,357	1,376	731	835	1,135	1,639	2,962	2,934	2,475
Arkansas	—	—	—	302	68	81	—	421	307	302	489	388
Louisiana	—	—	—	145	688	574	175	—	—	320	688	574
Mississippi	—	—	—	24	73	115	—	—	—	24	73	115
New Mexico	208	44	—	3,582	4,301	3,787	1,079	1,099	820	4,869	5,444	4,607
Texas	—	—	—	927	3,519	4,272	2,505	146	1,581	3,432	3,665	5,853
Total	978	467	105	6,337	10,025	9,560	4,594	2,801	4,347	11,909	13,293	14,012
District 4												
Colorado	—	—	—	1,121	1,538	921	—	—	130	1,121	1,538	1,051
Idaho	200	350	64	4,080	4,580	2,306	153	—	—	4,433	4,930	2,370
Montana	84	488	456	—	20	—	—	—	71	84	508	527
Utah	—	—	—	278	200	220	—	—	—	278	200	220
Wyoming	—	—	—	—	—	—	—	—	—	—	—	—
Total	284	838	520	5,479	6,338	3,447	153	—	201	5,916	7,176	4,168
District 5												
Arizona	—	—	—	354	314	105	431	196	50	785	510	155
California	—	—	11	5,483	10,351	5,398	2,279	2,357	1,210	7,762	12,708	6,619
Nevada	—	—	—	3,152	3,839	4,899	933	1,200	1,304	4,085	5,039	6,203
Oregon	120	—	11	8,881	9,777	12,922	—	1,304	1,913	9,001	11,081	14,846
Washington	1,893	2,986	2,140	2,864	3,434	3,381	958	2,579	1,694	5,715	8,999	7,215
Total	2,013	2,986	2,162	20,734	27,715	26,705	4,601	7,636	6,171	27,348	38,337	35,038
Total United States	40,924	26,699	26,400	192,347	231,226	206,573	18,423	23,767	26,724	251,694	281,692	259,697

Industrial

TABLE 9. - Sales of LP-gases in the United States, 1950-52
(Thousands of gallons)

	Butane			Propane			Mixture			Total LP-gases		
	1950	1951	1952	1950	1951	1952	1950	1951	1952	1950	1951	1952
District 1												
Connecticut	1,149	1,266	1,417	12,003	12,250	11,202	532	11	—	13,684	13,527	12,619
Delaware	—	—	—	315	352	3,173	—	—	—	315	352	3,173
Florida	—	—	81	232	1,059	1,015	204	—	2	436	1,059	1,098
Georgia	60	51	280	1,259	770	1,684	935	2,295	1,382	2,254	3,116	3,346
Maine	—	—	—	182	491	616	—	—	—	182	491	616
Maryland & D. C.	—	—	—	1,705	1,458	2,554	—	—	—	1,705	1,458	2,554
Massachusetts	—	—	—	1,614	2,126	3,789	—	—	—	1,614	2,126	3,789
New Hampshire	—	—	—	179	109	1,118	—	—	—	179	109	1,118
New Jersey	1,577	3,197	2,285	21,859	23,056	21,192	10	10	21	23,446	26,263	23,498
New York	454	207	769	2,823	2,815	4,847	—	—	—	3,277	3,022	5,616
North Carolina	—	9	10	1,179	1,904	4,228	400	37	11	1,579	1,950	4,249
Pennsylvania	717	603	867	19,023	19,867	20,475	—	32	21	19,740	20,502	21,363
Rhode Island	—	—	—	320	556	670	—	—	—	320	556	670
South Carolina	227	267	286	2,915	2,964	3,734	—	—	284	3,142	3,231	4,304
Vermont	—	—	—	110	374	541	—	—	—	110	374	541
Virginia	—	—	376	2,095	1,938	2,941	—	—	—	2,095	1,938	3,317
West Virginia	318	—	305	7,870	4,077	3,301	—	—	—	8,188	4,077	3,606
Total	4,502	5,600	6,676	75,683	76,166	87,080	2,081	2,385	1,721	82,266	84,151	95,477
District 2												
Illinois	5,303	4,723	4,091	10,266	15,452	16,488	241	2,167	1,652	15,810	22,342	22,231
Indiana	2,954	2,890	4,687	2,481	4,138	5,547	—	—	33	5,435	7,028	10,267
Iowa	1,440	—	885	4,250	5,337	7,170	11	21	31	5,701	5,358	8,086
Kansas	60	5,026	6,588	233	936	1,130	—	310	904	293	6,272	8,622
Kentucky	—	—	—	1,861	1,364	1,055	—	—	—	1,861	1,364	1,055
Michigan	8,565	1,973	2,068	12,714	21,329	17,799	739	—	14	22,018	23,302	19,881
Minnesota	1,024	729	764	2,830	3,692	2,709	20	651	1,337	3,874	5,072	4,810
Missouri	417	—	18	1,951	3,466	4,631	142	804	255	2,510	4,270	4,904
Nebraska	—	11	32	1,215	1,465	1,314	—	8	124	1,215	1,484	1,470
North Dakota	—	31	5	136	477	127	20	20	30	156	528	162
Ohio	38	229	277	3,658	4,680	6,021	—	—	—	3,696	4,909	6,298
Oklahoma	—	61	490	1,245	3,901	3,104	1,240	1,710	3,742	2,485	5,672	7,336
South Dakota	—	—	—	1,294	1,216	1,014	—	—	10	1,294	1,216	1,024
Tennessee	—	35	445	753	508	1,364	—	—	529	753	543	2,338
Wisconsin	14,462	13,928	17,666	16,758	14,385	13,069	1,330	1,809	2,400	32,550	30,122	33,135
Total	34,263	29,636	38,016	61,645	82,346	82,542	3,743	7,500	11,061	99,651	119,482	131,619
District 3												
Alabama	702	1,639	4	1,409	1,193	2,018	—	1,032	2,332	2,111	3,864	4,354
Arkansas	—	194	344	601	676	1,389	430	1,986	1,251	1,031	2,856	2,984
Louisiana	145	1,311	210	316	81	206	3,873	3,402	2,319	4,334	4,794	2,735
Mississippi	—	—	169	149	515	473	313	767	558	462	1,282	1,200
New Mexico	—	—	163	435	122	314	197	210	3,099	632	332	3,576
Texas	664	1,650	6,130	13,397	14,681	24,695	2,399	12,421	27,726	16,460	28,752	58,551
Total	1,511	4,794	7,020	16,307	17,268	29,095	7,212	19,818	37,285	25,030	41,880	73,400
District 4												
Colorado	—	83	221	456	618	654	143	5	66	599	706	941
Idaho	—	—	—	60	427	521	—	—	—	60	427	521
Montana	—	184	—	400	436	383	—	—	—	400	620	383
Utah	—	—	—	217	200	638	—	—	—	217	200	638
Wyoming	—	1,342	55	—	223	98	—	—	920	—	1,565	1,073
Total	—	1,609	276	1,133	1,904	2,294	143	5	986	1,276	3,518	3,556
District 5												
Arizona	—	—	—	18	149	64	—	—	145	18	149	209
California	—	1,411	—	4,516	3,386	9,829	702	2,570	4,965	5,218	7,367	14,794
Nevada	—	—	—	9	184	1,058	—	300	—	9	484	1,058
Oregon	—	—	—	925	1,887	2,052	1,142	502	—	2,067	2,389	2,052
Washington	722	1,515	1,345	821	1,167	1,457	—	—	—	1,543	2,682	2,802
Total	722	2,926	1,345	6,289	6,773	14,460	1,844	3,372	5,110	8,855	13,071	20,915
Total United States	40,998	44,565	53,333	161,057	184,457	215,471	15,023	33,080	56,163	217,078	262,102	324,967

TABLE 10. - Sales of LP-gases in the United States, 1950-52

(Thousands of gallons)

Synthetic rubber

States by districts	Butane			Propane			Mixture			Total LP-gases		
	1950	1951	1952	1950	1951	1952	1950	1951	1952	1950	1951	1952
District 1												
Connecticut	—	11	126	—	—	—	—	—	—	—	11	126
Delaware	—	—	—	—	—	—	—	—	—	—	—	—
Florida	—	—	—	—	—	—	—	—	—	—	—	—
Georgia	—	—	—	—	—	—	—	—	20	—	—	20
Maine	—	—	—	—	—	—	—	—	—	—	—	—
Maryland & D. C.	—	—	—	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	1	—	—	—	—	—	1
New Hampshire	—	—	—	—	—	—	—	—	—	—	—	—
New Jersey	—	31	21	—	—	—	—	—	—	—	31	21
New York	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	—	93	314	71	41	31	—	—	—	71	134	345
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	—	—	—	282	—	—	—	—	—	282	—	—
West Virginia	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	135	461	353	41	32	—	—	20	353	176	513
District 2												
Illinois	—	11	169	—	—	—	—	—	2,027	—	11	2,196
Indiana	—	105	62	—	—	—	—	—	356	—	105	418
Iowa	—	—	—	—	—	—	—	—	—	—	—	—
Kansas	—	—	—	—	—	—	—	—	—	—	—	—
Kentucky	—	1,443	1,026	410	—	—	—	—	420	410	1,443	1,446
Michigan	—	189	134	—	—	—	—	—	—	—	189	134
Minnesota	—	—	—	—	—	—	—	—	—	—	—	—
Missouri	—	—	—	—	—	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	—	—	—	—	—	—
North Dakota	—	—	—	—	—	—	—	—	—	—	—	—
Ohio	—	1,098	825	—	—	—	—	—	—	—	1,098	825
Oklahoma	—	—	11	—	—	72	—	76	256	—	76	339
South Dakota	—	—	—	—	—	—	—	—	—	—	—	—
Tennessee	—	29	—	—	—	—	—	—	—	—	29	—
Wisconsin	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	2,875	2,227	410	—	72	—	76	3,059	410	2,951	5,358
District 3												
Alabama	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—	—	—	—
Louisiana	40,840	61,392	89,770	—	4,872	—	—	—	—	40,840	66,264	89,770
Mississippi	—	—	—	—	—	—	—	—	—	—	—	—
New Mexico	—	—	—	—	—	—	—	—	—	—	—	—
Texas	174,379	263,978	219,424	—	—	—	—	10,009	23,981	174,379	273,987	243,405
Total	215,219	325,370	309,194	—	4,872	—	—	10,009	23,981	215,219	340,251	333,175
District 4												
Colorado	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—	—	—	—	—
Montana	—	—	—	—	—	—	—	—	—	—	—	—
Utah	—	—	—	—	—	—	—	—	—	—	—	—
Wyoming	—	—	—	—	2	—	—	—	—	—	2	—
Total	—	—	—	—	2	—	—	—	—	—	2	—
District 5												
Arizona	—	—	—	—	—	—	—	—	—	—	—	—
California	1,080	29,104	31,809	11,423	366	142	—	2,014	—	12,503	31,484	31,951
Nevada	—	—	—	—	—	—	—	—	—	—	—	—
Oregon	—	—	—	—	—	—	—	—	—	—	—	—
Washington	—	—	—	—	—	—	—	—	—	—	—	—
Total	1,080	29,104	31,809	11,423	366	142	—	2,014	—	12,503	31,484	31,951
Total United States	216,299	357,484	343,691	12,186	5,281	246	—	12,099	27,060	228,485	374,864	370,997

Chemical plants

TABLE 11. - Sales of LP-gases in the United States, 1950-52
(Thousands of gallons)

States by districts	Butane			Propane			Mixture			Total LP-gases		
	1950	1951	1952	1950	1951	1952	1950	1951	1952	1950	1951	1952
District 1												
Connecticut	—	—	—	—	—	—	—	—	—	—	—	—
Delaware	—	—	—	—	933	932	—	—	—	—	933	932
Florida	—	—	—	—	—	—	—	—	—	—	—	—
Georgia	—	—	—	4	175	152	—	—	—	4	175	152
Maine	—	—	—	—	—	—	—	—	—	—	—	—
Maryland & D. C.	—	—	—	—	—	—	—	—	—	—	—	—
Massachusetts	—	—	—	—	—	10	—	—	—	—	—	10
New Hampshire	—	—	—	—	—	—	—	—	—	—	—	—
New Jersey	2,302	3,179	2,734	485	—	—	—	—	1,350	2,787	3,179	4,084
New York	—	52	—	1,517	1,179	2,366	—	—	—	1,517	1,231	2,366
North Carolina	—	—	—	—	21	—	—	—	—	—	21	—
Pennsylvania	—	—	—	10,979	10,500	7,840	—	42	105	10,979	10,542	7,945
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	—	—	—	—	62	113	—	—	—	—	62	113
West Virginia	3,765	1,413	3,876	26,622	6,264	8,017	108,109	132,885	171,543	138,496	140,562	183,436
Total	6,067	4,644	6,610	39,607	19,134	19,430	108,109	132,927	172,998	153,783	156,705	199,038
District 2												
Illinois	10	1,042	750	127	276	1,414	—	—	—	137	1,318	2,164
Indiana	—	—	—	6,760	2,929	2,180	1,218	33,366	23,847	7,978	36,295	26,027
Iowa	—	—	—	—	—	—	—	—	—	—	—	—
Kansas	—	—	—	—	—	—	—	911	—	—	911	—
Kentucky	—	—	—	—	261	276	50,587	49,801	52,563	50,587	50,062	52,839
Michigan	983	1,117	1,496	433	1,339	1,610	—	—	—	1,416	2,456	3,106
Minnesota	—	—	—	—	—	40	—	—	—	—	—	40
Missouri	—	—	—	—	—	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	—	—	—	—	—	—
North Dakota	—	—	—	—	—	—	—	—	—	—	—	—
Ohio	—	—	—	—	34	96	—	—	—	—	34	96
Oklahoma	—	—	—	—	158	250	336	141	322	336	299	572
South Dakota	—	—	—	—	—	16	—	—	—	—	—	16
Tennessee	—	—	—	196	15	2,289	—	—	—	196	15	2,289
Wisconsin	—	—	—	—	—	—	—	—	1	—	—	1
Total	993	2,159	2,246	7,516	5,012	8,171	52,141	84,219	76,733	60,650	91,390	87,150
District 3												
Alabama	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—	—	—	—
Louisiana	20	—	—	53,532	104,617	109,676	—	—	372	53,552	104,617	110,048
Mississippi	—	—	—	—	—	—	—	—	—	—	—	—
New Mexico	—	—	—	—	—	—	—	—	—	—	—	—
Texas	63,257	98,055	62,862	197,717	340,222	243,611	73,135	26	117,390	334,109	438,303	423,863
Total	63,277	98,055	62,862	251,249	444,839	353,287	73,135	26	117,762	387,661	542,920	533,911
District 4												
Colorado	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—	—	—	—	—
Montana	—	—	—	—	—	—	—	—	—	—	—	—
Utah	—	—	—	—	—	27	—	—	—	—	—	27
Wyoming	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	27	—	—	—	—	—	27
District 5												
Arizona	—	—	—	—	—	—	—	—	—	—	—	—
California	158	14,055	9,602	4,087	39,437	41,215	18,129	—	—	22,374	53,492	50,817
Nevada	—	—	47	—	—	—	—	—	—	—	—	47
Oregon	—	—	—	—	—	—	—	—	—	—	—	—
Washington	—	—	—	—	—	—	—	—	—	—	—	—
Total	158	14,055	9,649	4,087	39,437	41,215	18,129	—	—	22,374	53,492	50,864
Total United States	70,495	118,913	81,367	302,459	508,422	422,130	251,514	217,172	367,493	624,468	844,507	870,990

Internal combustion

TABLE 12. - Sales of LP-gases in the United States, 1950-52
(Thousands of gallons)

States by districts	Butane			Propane			Mixture			Total LP-gases		
	1950	1951	1952	1950	1951	1952	1950	1951	1952	1950	1951	1952
District 1												
Connecticut	—	—	—	590	620	671	—	—	—	590	620	671
Delaware	—	—	—	—	25	14	—	—	—	—	25	14
Florida	—	—	17	127	264	666	220	77	327	347	341	1,010
Georgia	—	—	6	57	1,186	1,275	463	29	57	520	1,215	1,338
Maine	—	—	—	55	76	81	—	—	—	55	76	81
Maryland & D. C.	—	—	—	—	—	20	—	—	—	—	—	20
Massachusetts	—	—	—	—	—	—	—	—	—	—	—	—
New Hampshire	—	—	—	—	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	19	27	—	—	—	—	19	27
New York	—	—	—	—	9	76	—	—	—	—	9	76
North Carolina	90	—	—	42	48	22	111	999	850	243	1,047	872
Pennsylvania	—	—	—	21	278	156	—	—	—	21	278	156
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	—	—	10	13	38	118	—	26	51	13	64	179
Vermont	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	—	—	—	19	32	107	—	—	—	19	32	107
West Virginia	—	—	—	530	620	637	—	—	—	530	620	637
Total	90	—	33	1,454	3,215	3,870	794	1,131	1,285	2,338	4,346	5,188
District 2												
Illinois	1,351	133	2,009	6,480	10,932	13,589	2.238	6,007	2,722	10,069	17,072	18,320
Indiana	329	—	1,500	1,148	1,960	3,158	—	728	2,795	1,477	2,688	7,453
Iowa	—	32	323	460	530	1,293	11	19	20	471	581	1,636
Kansas	590	3,449	908	1,424	3,790	5,756	3,253	5,491	5,636	5,267	12,730	12,300
Kentucky	164	—	500	1,264	489	751	15	575	104	1,443	1,064	1,355
Michigan	—	—	—	601	2,011	1,687	474	—	856	1,075	2,011	2,543
Minnesota	53	31	133	1,753	2,688	4,118	1,520	1,425	829	3,326	4,144	5,080
Missouri	33	826	5	498	546	2,932	347	62	1,120	878	1,434	4,057
Nebraska	51	7	142	998	1,373	2,763	131	211	257	1,180	1,591	3,162
North Dakota	—	30	1,133	239	1,396	3,138	1,525	60	4,265	1,764	1,486	8,536
Ohio	—	14	56	1,136	1,358	1,785	—	—	—	1,136	1,372	1,841
Oklahoma	1,472	1,889	1,754	484	5,866	5,953	3,213	11,350	12,204	5,169	19,105	19,911
South Dakota	—	—	129	1,710	2,006	2,197	—	—	—	1,710	2,006	2,326
Tennessee	—	16	—	576	204	361	336	4	54	912	224	415
Wisconsin	942	132	527	234	1,396	1,405	524	71	232	1,700	1,599	2,164
Total	4,985	6,559	9,119	19,005	36,545	50,886	13,587	26,003	31,094	37,577	69,107	91,099
District 3												
Alabama	—	—	—	452	98	564	3	909	662	455	1,007	1,226
Arkansas	231	755	2,144	419	1,970	1,730	1,323	1,613	2,669	1,973	4,338	6,543
Louisiana	213	31	208	—	10,653	11,668	5,562	5,223	6,718	5,775	15,907	18,594
Mississippi	—	70	142	1,089	5,419	5,821	2,192	2,520	2,644	3,281	8,009	8,607
New Mexico	2,069	1,698	3,734	3,548	3,996	12,702	464	1,397	2,669	6,081	7,091	19,105
Texas	6,876	22,322	9,191	2,179	12,420	19,643	17,122	85,640	114,003	26,177	120,382	142,837
Total	9,389	24,876	15,419	7,687	34,556	52,128	26,666	97,302	129,365	43,742	156,734	196,912
District 4												
Colorado	255	399	344	472	1,006	2,864	269	235	1,117	996	1,640	4,325
Idaho	2	—	—	22	43	65	—	—	—	24	43	65
Montana	99	427	406	120	292	670	—	—	1,604	219	719	2,680
Utah	—	—	246	26	382	1,305	—	200	—	26	582	1,551
Wyoming	—	2,014	398	1,470	372	1,015	38	1,002	1,200	1,508	3,388	2,613
Total	356	2,840	1,394	2,110	2,095	5,919	307	1,437	3,921	2,773	6,372	11,234
District 5												
Arizona	—	16	—	822	2,757	1,274	1,200	754	4,876	2,022	3,527	6,150
California	74	—	—	32,596	35,463	34,464	8,545	14,129	24,207	41,215	49,592	58,671
Nevada	—	—	—	—	108	128	—	—	—	—	108	128
Oregon	—	—	—	12	187	1,015	—	—	—	12	187	1,015
Washington	—	—	—	139	18	161	—	—	—	139	18	161
Total	74	16	—	33,569	38,533	37,042	9,745	14,883	29,083	43,388	53,432	66,125
Total United States	14,894	34,291	25,965	63,825	114,944	149,845	51,099	140,756	194,748	129,818	289,991	370,558

TABLE 13. - Sales of LP-gases in the United States, 1950-52

(Thousands of gallons)

All other

States by districts	Butane			Propane			Mixture			Total LP-gases		
	1950	1951	1952	1950	1951	1952	1950	1951	1952	1950	1951	1952
District 1												
Connecticut	—	—	—	—	232	1,682	—	—	—	—	232	1,682
Delaware	—	—	—	—	—	3	—	—	—	—	—	3
Florida	—	—	—	—	—	1	22	4	64	22	4	65
Georgia	—	3	—	20	175	135	—	31	20	20	209	155
Maine	—	—	—	—	—	54	—	—	—	—	—	54
Maryland & D. C.	—	—	—	—	125	70	—	—	—	—	125	70
Massachusetts	—	—	—	1	39	269	—	—	—	1	39	269
New Hampshire	—	—	—	—	—	25	—	—	—	—	—	25
New Jersey	—	—	—	—	281	342	—	—	—	—	281	342
New York	—	—	—	10	13	10	—	—	—	10	13	10
North Carolina	—	98	—	12	99	261	—	—	—	12	197	261
Pennsylvania	—	—	—	10	38	67	—	—	—	10	38	67
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	110	49	—	—	—	—	110	49
Vermont	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	—	—	—	—	—	—	—	—	—	—	—	—
West Virginia	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	101	—	53	1,112	2,968	22	35	84	75	1,248	3,052
District 2												
Illinois	1,403	—	—	288	374	409	—	5	—	1,691	379	409
Indiana	—	—	—	—	688	690	—	—	—	—	688	690
Iowa	—	—	—	—	9	313	—	—	—	—	9	313
Kansas	—	4	—	—	114	162	—	4	—	—	122	162
Kentucky	—	20	—	—	42	20	—	—	—	—	62	20
Michigan	—	—	—	—	15	3	—	—	—	—	15	3
Minnesota	—	10	—	—	34	4	—	—	—	—	44	4
Missouri	4,100	—	—	—	22	138	—	—	29	4,100	22	167
Nebraska	—	—	—	—	210	41	—	10	30	—	220	71
North Dakota	—	—	—	1	130	135	—	—	—	1	130	135
Ohio	—	—	—	—	38	21	—	—	—	—	38	21
Oklahoma	—	45	—	—	126	—	—	36	—	—	207	—
South Dakota	—	—	—	6	—	292	—	240	—	6	240	292
Tennessee	—	—	—	—	85	125	—	—	—	—	85	125
Wisconsin	—	—	15	4	39	218	—	10	—	4	49	233
Total	5,503	79	15	299	1,926	2,571	—	305	59	5,802	2,310	2,645
District 3												
Alabama	—	—	—	—	11	13	—	—	34	—	11	47
Arkansas	—	—	4	—	500	513	1,453	245	255	1,453	745	772
Louisiana	1	7	5	—	—	15	—	55	—	1	62	20
Mississippi	50	—	10	25	9	746	25	—	500	100	9	1,256
New Mexico	—	386	327	10	909	534	170	—	—	180	1,295	861
Texas	56	39	—	62	48	174	420	155	2,095	538	242	2,269
Total	107	432	346	97	1,477	1,995	2,068	455	2,884	2,272	2,364	5,225
District 4												
Colorado	—	—	—	200	132	155	—	—	—	200	132	155
Idaho	—	—	—	—	—	48	—	—	—	—	—	48
Montana	—	—	—	—	20	—	—	—	—	—	20	—
Utah	—	—	—	—	39	103	—	—	—	—	39	103
Wyoming	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	200	191	306	—	—	—	200	191	306
District 5												
Arizona	—	—	—	—	—	—	—	—	—	—	—	—
California	175	383	307	18	543	1,779	18	75	501	211	1,001	2,587
Nevada	—	—	—	—	—	20	—	—	—	—	—	20
Oregon	—	—	—	—	178	93	—	—	—	—	178	93
Washington	—	—	—	—	14	64	—	—	—	—	14	64
Total	175	383	307	18	735	1,956	18	75	501	211	1,193	2,764
Total United States	5,785	995	668	667	5,441	9,796	2,108	870	3,528	8,560	7,306	13,992

TABLE 14. - Sales of LP-gases in the United States, 1950-52

(Thousands of gallons)

Total LP-gases

States by districts	Butane			Propane			Mixture			Total LP-gases		
	1950	1951	1952	1950	1951	1952	1950	1951	1952	1950	1951	1952
District 1												
Connecticut	1,212	1,349	4,268	35,737	35,436	42,122	1,042	273	121	37,991	37,058	46,511
Delaware	—	7	11	7,868	8,510	11,739	—	—	—	7,868	8,517	11,750
Florida	1,078	5,772	4,445	31,693	34,068	45,861	26,790	27,555	28,371	59,561	67,395	78,677
Georgia	2,342	4,294	7,396	35,089	43,047	43,822	20,771	19,049	27,171	58,202	66,390	78,389
Maine	—	—	—	13,363	12,367	13,417	124	10	—	13,487	12,377	13,417
Maryland & D. C.	848	581	1,397	26,181	24,300	25,827	—	—	—	27,029	24,881	27,224
Massachusetts	7,739	5,245	7,818	26,956	28,082	34,281	3,503	2,639	—	38,198	35,966	42,099
New Hampshire	—	—	90	9,738	10,732	12,626	—	71	—	9,738	10,803	12,716
New Jersey	9,248	9,282	6,477	60,830	59,094	48,922	52	14	1,646	70,130	68,390	57,045
New York	6,669	2,180	1,347	57,810	60,283	61,858	1,045	856	2,817	65,524	63,319	66,022
North Carolina	445	2,755	630	47,119	56,175	63,136	9,256	5,601	5,186	56,820	64,531	68,952
Pennsylvania	3,399	2,090	3,454	73,765	80,352	75,247	2,531	5,088	10,734	79,695	87,530	89,435
Rhode Island	—	—	—	5,238	5,710	5,055	—	—	—	5,238	5,710	5,055
South Carolina	1,000	1,768	2,131	23,759	27,951	28,661	8,241	10,153	9,593	33,000	39,872	40,385
Vermont	—	—	27	6,381	8,481	10,435	—	—	—	6,381	8,481	10,462
Virginia	836	1,112	871	30,391	30,410	31,737	67	61	—	31,294	31,583	32,608
West Virginia	4,715	1,917	4,181	41,678	18,316	18,816	108,109	132,885	171,543	154,502	153,118	194,540
Total	39,531	38,352	44,543	533,596	543,314	573,562	181,531	204,255	257,182	754,658	785,921	875,287
District 2												
Illinois	25,209	16,009	10,122	103,306	122,655	129,971	11,375	16,646	8,499	139,890	155,310	148,592
Indiana	13,490	6,773	6,746	61,234	71,094	74,190	1,594	34,665	27,448	76,318	112,532	108,384
Iowa	4,779	2,654	5,524	55,919	61,779	75,657	2,243	1,037	674	62,941	65,470	81,855
Kansas	1,904	12,215	14,692	48,668	57,853	73,385	24,628	29,626	26,453	75,200	99,694	114,530
Kentucky	602	2,362	1,775	26,702	26,205	30,054	54,658	53,425	55,530	81,962	81,992	87,359
Michigan	25,809	9,979	8,969	66,688	87,659	71,508	2,087	1,041	870	94,584	98,679	81,347
Minnesota	2,937	2,440	3,156	63,076	67,503	77,776	1,680	2,408	3,591	67,693	72,351	84,523
Missouri	6,040	2,991	3,130	56,866	64,961	80,644	9,790	10,741	10,035	72,696	78,693	93,809
Nebraska	465	1,072	1,888	40,069	43,085	49,862	2,700	3,738	4,089	43,234	47,895	55,839
North Dakota	80	666	1,446	19,138	22,813	25,279	1,996	1,337	4,319	21,214	24,816	31,044
Ohio	541	1,779	1,656	38,205	43,059	43,881	21	72	—	38,767	44,910	45,537
Oklahoma	11,327	14,049	13,779	46,031	60,957	70,934	50,858	57,723	53,224	108,216	132,729	137,937
South Dakota	213	792	232	33,414	37,857	39,297	2,380	810	840	36,007	39,459	40,369
Tennessee	930	1,134	872	20,077	21,439	24,383	7,765	4,979	4,962	28,772	27,552	30,217
Wisconsin	17,717	17,742	20,219	63,676	63,122	62,047	1,902	2,240	3,421	83,295	83,104	85,687
Total	112,043	92,657	94,206	743,069	852,041	928,868	175,677	220,488	203,955	1,030,789	1,165,186	1,227,029
District 3												
Alabama	2,241	5,604	2,082	20,046	19,671	23,282	16,497	24,433	26,509	38,784	49,708	51,873
Arkansas	3,104	3,770	10,004	20,760	23,888	33,680	52,479	54,716	53,452	76,343	82,374	97,136
Louisiana	94,536	86,287	98,629	66,512	141,427	140,133	72,555	93,531	68,475	233,603	321,245	307,237
Mississippi	5,918	4,937	4,100	15,945	19,312	25,798	33,281	39,027	56,210	55,144	63,276	86,108
New Mexico	11,455	5,972	8,341	24,400	35,400	39,399	17,947	17,488	17,150	53,802	58,860	64,890
Texas	284,706	409,469	325,794	270,783	467,867	383,053	308,832	335,264	506,373	864,321	1,212,600	1,215,220
Total	401,960	516,039	448,950	418,446	707,565	645,345	501,591	564,459	728,169	1,321,997	1,788,063	1,822,464
District 4												
Colorado	3,148	2,557	1,165	30,417	36,289	44,176	1,238	2,492	4,159	34,803	41,338	49,500
Idaho	366	595	249	7,524	10,203	9,446	153	142	200	8,043	10,940	9,895
Montana	331	3,205	1,191	8,551	8,343	10,739	—	—	1,675	8,882	11,548	13,605
Utah	14	46	283	2,644	3,793	8,354	25	212	31	2,683	4,051	8,668
Wyoming	3,825	6,068	3,326	16,000	17,082	18,501	424	1,341	2,857	20,249	24,491	24,684
Total	7,684	12,471	6,214	65,136	75,710	91,216	1,840	4,187	8,922	74,660	92,368	106,352
District 5												
Arizona	38	16	44	10,775	13,483	9,164	11,078	9,824	20,248	21,891	23,323	29,456
California	2,039	44,953	41,729	128,949	166,521	191,352	97,600	87,168	96,932	228,588	298,642	330,013
Nevada	—	—	47	5,298	8,606	11,145	940	1,500	2,588	6,238	10,106	13,780
Oregon	2,008	—	11	21,888	36,081	44,676	3,621	4,006	1,913	27,517	40,087	46,600
Washington	2,735	4,501	3,538	11,144	15,469	18,267	2,350	3,609	4,593	16,229	23,579	26,398
Total	6,820	49,470	45,369	178,054	240,160	274,604	115,589	106,107	126,274	300,463	395,737	446,247
Total United States	568,038	708,989	639,282	1,938,301	2,418,790	2,513,595	976,228	1,099,496	1,324,502	3,482,567	4,227,275	4,477,379

TABLE 15. - LP-gases exported from the United States, 1928-52, by countries
(Thousands of gallons)[1]

Year	Argentina	Bermuda	Brazil	Canada	Cuba	France	Mexico	Netherlands	Philippines	West Indies	Other countries	Total
1928 [2]	--	--	--	188	--	--	--	--	--	--	109	297
1929	--	--	--	260	--	--	38	--	--	43	182	523
1930	--	--	--	104	--	--	96	--	--	34	182	416
1931	--	--	--	208	--	--	94	--	--	--	231	533
1932	--	--	114	166	--	286	49	--	--	409	127	1,151
1933	--	--	--	245	--	3,032	--	--	--	--	373	3,650
1934	--	--	--	309	--	4,346	--	--	--	--	313	4,968
1935	--	--	--	330	--	3,169	--	585	--	636	407	5,127
1936	--	--	--	229	--	4,128	123	602	--	--	43	5,125
1937	--	--	--	295	--	1,301	253	--	--	--	135	1,984
1938	--	--	--	386	--	--	401	--	--	--	38	825
1939	--	--	--	420	--	566	517	--	--	--	67	1,570
1940	--	--	--	530	--	28	812	--	--	--	246	1,616
1941	--	--	227	1,329	--	--	3,434	--	--	--	604	5,594
1942	--	64	71	3,501	--	--	4,548	--	--	--	201	8,385
1943	--	59	--	4,499	--	--	5,374	--	--	--	130	10,062
1944	--	86	--	7,507	--	--	6,743	--	--	--	221	14,557
1945	7	103	63	15,044	--	--	10,615	--	12	--	215	26,059
1946	40	147	289	30,379	--	1,941	15,955	--	101	--	239	49,091
1947	8	198	1,570	31,591	59	2,082	16,471	--	402	--	852	53,233
1948	290	269	1,720	26,681	259	[3]	15,497	--	568	--	236	45,520
1949	546	282	3,405	31,195	463	[3]	16,120	--	894	--	478	53,383
1950	54	322	4,686	34,032	1,264	639	25,415	--	751	--	600	67,763
1951	--	405	6,413	43,293	2,228	1,265	31,976	--	783	--	881	87,244
1952	--	417	11,046	42,951	3,408	[3]	40,003	--	528	--	943	99,296

[1] Converted from pounds to gallons at 4.5 pounds per gallon.
[2] Totals for 1928-1935 may contain small amounts of other gases.
[3] Less than 500 gallons included with "Other countries."

Source: Bureau of the Census, United States Department of Commerce.

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